while it had, previously to the appearance of his paper, been generally recognized by army surgeons, and even fully alluded to in an address delivered before the Philadelphia County Medical Society by Prof. Alfred Stillé in February, 1863, he was the first to describe in a scientific journal.[1]

The value of the work to the student has been materially enhanced by the insertion of numerous illustrations. J. H. H.

ART. XXXIX.—*First Lines of Therapeutics, as Based on the Modes and the Processes of Healing, as occurring spontaneously in Disease; and on the Modes and Processes of Dying, as resulting naturally from Disease. In a Series of Lectures.* By ALEXANDER HARVEY, M.A., M.D. (Edin.), Emeritus Professor of Materia Medica in the University of Aberdeen, etc. 12mo. pp. xvi., 278. New York: D. Appleton & Co., 1879.

THE purpose of the twenty-four lectures first delivered in this volume is to impress upon the students of medicine that the first great lesson of therapeutics is that the inherent tendency of most diseases is to a favourable termination, and that they spontaneously cure themselves through natural modes and processes under the influence merely of suitable regimen and nursing, and with such assistance alone the organism cures itself. Disease is not an entity to be expelled or destroyed by drugs, but merely an abnormal performance of the functions of organs.

The second great lesson is how to recognize the fatal tendencies and the modes of the fatal termination of diseases. "Without a sound knowledge of the several modes of dying and of the physiology of the dying processes, it is impossible to have a right understanding of the physiological actions of a large number" of the articles of the materia medica, especially of the most efficient of them. Therefore a thorough acquaintance with the natural history or progress of disease, and the natural modes of death, best qualifies the physician to treat diseases efficiently.

Such is the theme and substance of the work, which is remarkable for frequent iteration of the author's views, and for the prolixity of his style. In support of his positions he often quotes or refers to Cullen, Alison, Gubler, Forbes, Latham, Travers, Watson, and others. W. S. W. R.

ART. XL.—*Experimental Researches in the Regional Temperature of the Head, under Conditions of Rest, Intellectual Activity, and Emotion.* By J. S. LOMBARD, M.D., formerly Assistant Professor of Physiology in Harvard University, U. S. 8vo. pp. viii., 211. London: H. K. Lewis, 1879.

CEREBRAL thermometry, owing to the labours of Broca, Gray, Maragliano and Sepelli, and others, has during the last few years attracted a large share of professional attention. Dr. Lombard published in 1867 some investigations made with thermo-electric apparatus on the temperature of the human head, in states of repose, and of intellectual and emotional activity. He was only preceded by Albers, of Bonn, whose experiments, in 1861, were conducted among the insane.

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[1] See number of this Journal for July, 1864.

The objects of the experimental researches recorded in the volume before us were primarily to determine the normal relative temperatures of different portions of the surface of the head, when the brain is inactive; and to study the effect of different mental states on these temperatures. The ultimate objects were to furnish data for examining head temperature in morbid cerebral conditions; and to investigate if possible the parts played by different portions of the surface of the brain in intellectual work and in the various emotions.

Part I. contains a description of apparatus employed, and experimental methods adopted in the examination of the temperature of the head; Part II. is concerned with the relative temperatures of different parts of the surface of the head in the quiescent mental state; and Part III. with the effect of intellectual and emotional activity on the temperature of the head.

The head was divided into an anterior, middle, and posterior *region;* and these regions were subdivided into *tiers* by equidistant horizontal lines, and into *districts* by vertical lines. A large number of elaborate tables show the results of observations on symmetrically situated spaces of the two sides of the different regions; and on regions in spaces on one and the same side. Diagrams indicating the distribution of comparative superiority of temperature on the two sides of the head in the different regions, are also given; and at the end of the book is a diagrammatic plate of the points of the cerebral convolutions underlying some of the most important of the subdivisions of the surface.

In the anterior, middle, and posterior regions, he found that every space may be of higher temperature on either the right side or the left side, in turn. Superiority of temperature of one side of the head over the other occurs little less frequently than that of one tier or district over another on one and the same side. The two sides of the head are rarely equal in temperature, but the balance of superiority shifts so frequently from one side to the other, that the percentage of superiority for either side, in a given number of observations, is comparatively small. The anterior region has the highest, and the middle region the lowest average temperature; the highest individual temperature occurs in the anterior, and the second highest in the middle region; the lowest in the middle and the second lowest in the posterior region. Dr. Lombard concludes after a careful study of the question, that small differences of temperature at the surface of the brain may be detected at the outer surface of the head, but "does not feel inclined to place much reliance on the examination of the relative temperature of different parts of the integument of the head as a means of medical diagnosis, although such examinations may in some cases lead to interesting results."

He found that intellectual work, and emotional activity to a greater extent, caused a rise of temperature in all three regions of the head. The order of the regions with regard to both degree and rapidity of rise was (1) anterior, (2) middle, and (3) posterior region. The greatest elevations of temperature during intellectual work *of all kinds* were usually met with in the spaces which lie over a tract of the brain-surface formed by the posterior portion of the first and second frontal, and the ascending frontal convolutions, and possibly, crossing the fissure of Rolando, the anterior part of the ascending parietal convolution. Testing the effect of verbal expression in intellectual work on the comparative rise of temperature in the surface over Broca's convolution, it was found that the average was greater than that ordinarily obtained in comparison with the space in the middle region in which the experimental conditions were as nearly as possible the same; still, this average was hardly enough to justify a conclusion that the temperature of the surface over Broca's convolution is specially affected by reading aloud. In the greater number of cases experimented upon, in all three regions, the greater rise of temperature, both in intellectual work and in emotional activity, takes place on the left side of the head. His final inference is that—

> "taking the rise of temperature as the best available measure of functional activity—the relative elevations of temperature of areas of a certain size of the outer surface, during mental exercise, represent with considerable correctness the relative degrees of functional activity of the corresponding underlying portions of brain surface."

It will be seen, from this *resumé* of the most important conclusions arrived at by Dr. Lombard, that his book will prove of special interest to the students of localization, and to those engaged in local thermometrical investigations. He deserves all praise for the careful, minute, and elaborate character of his work, of which we have only given a sketchy outline. In all he has made no less than sixty thousand observations. C. K. M.

ART. XLI.—*Health Reports.*

1. *First Annual Report of the State Board of Health of the State of Rhode Island for* 1878. Pp. 200. Providence, 1879.
2. *First Annual Report of the State Board of Health of Kentucky,* 1878. Pp. cxxiv., 84. Frankfort, 1879.
3. *Third Report of the Board of Health of the City of Nashville for* 1877 and 1878. Pp. 384. Nashville, 1879.
4. *Annual Report of the Board of Health of the State of Louisiana for the year* 1878. Pp. 192. New Orleans, 1879.
5. *Seventh Annual Report of the State Board of Health of Minnesota, January,* 1879. Pp. 133. Minneapolis.
6. *Fifth Biennial Report of the State Board of Health of California for the years ending* 1878 *and* 1879. Pp. 115. Sacramento, 1879.

1. THE establishment of a *State Board of Health in Rhode Island* appears to have been another of the beneficial results arising from the International Medical Congress held in Philadelphia in 1876, and in accordance with a resolution then and there adopted and transmitted to the governors of all the States and of the Canadian provinces. A history of the inception and establishment of this important portion of the machinery for securing that great object of all right government—the greatest good to the greatest number of those governed—is prefixed to the report, and should be carefully studied by physicians and legislators engaged in elaborating similar plans for sanitary improvement. The chairman of the legislative committee, to whom the project was referred, submitted a paper in which he calculated that, out of 4116 individuals